

Reply To: 3400

Date: June 11, 1993

Subject: Dead Coulter pines at Sycamore Fire Station (Rpt-No. S93-01)

To: District Ranger, Cajon Ranger District

On May 27, 1993, James Allison, Pathologist, Regional Office; Larry Busby, Captain, Sycamore Fire Station, Cajon RD; and I examined the two dead Coulter pines which had been growing on the drainage behind the fire station. These trees were ca. 27 years old. The first died last fall, the second, this spring. Both trees had pitch streaming on the bole prior to death. The elevation at the site is approximately 2000 feet, and the soil is very sandy and rocky. Heavy rains this winter washed the soil from the roots on one side of both of these trees.

The primary cause of death for both of these trees appeared to be the poor, off-site growing conditions. Both had very shallow roots with some roots winding part way around the trees, partially girdling the vascular systems. When I examined the first tree last fall, I found no insects or diseases which could have caused the death of the tree. On this visit, James Allison again found no diseases, and noted that there was no evidence that these trees had been planted in their nursery cans. Both trees were infested with Ips paraconfusus. A third tree on the same side of the drainage is also streaming pitch from the bole and has a thin crown. Neither this nor any other live tree showed signs of a bark beetle infestation.

Management alternatives include doing nothing, or removing the Ips infested trees and thinning the stand. If no management actions are taken, it is possible that the Ips emerging from the two dead trees will attack and kill other trees in the stand. At present, the number of Ips are relatively low, making it less likely that an attack on a vigorously growing tree would be successful. However, some of the trees on the site are not growing well. Further, it is likely that others of the Coulter pines will die because of being poorly adapted to the site. It seems particularly likely that the live tree which is streaming pitch will die, with or without bark beetles. If bark beetles build up on dead or weakened trees, they could attain sufficient numbers to kill vigorously growing trees.

Removing the Ips-infested trees would reduce the chances of marginally-growing trees being attacked and killed, and possibly prolong their lives. If this option is chosen, the stand should be monitored for future attacks and tree mortality, so that infested or recently dead but not yet infested trees can be removed in a timely manner. Thinning the stand when the trees are growing well (in non-drought years) would help prolong the lives of the leave trees. If more trees are planted in the area, it may be desirable to plant native trees, such as sycamore, cottonwood, or poplar, which may be adapted to the site.

Live sycamore is susceptible to a foliar disease, anthracnose, which may cause some disfigurement. Planting native shrub and wildflower species may also be desirable.

Questions about diseases should be directed to James Allison at (415) 705-2565. Please call me at (909) 383-5588 if you have insect questions (e.g., concerning Ips).

Sincerely,

*Laura Merrill*

Laura D. Merrill, Entomologist  
Forest Pest Management

cc: Supervisor, San Bernardino National Forest  
L. Busby, Captain, Sycamore Fire Station  
S. Dougherty, Resource Officer, Cajon R.D.  
J. Allison, Pathologist, RO  
J. Neisess, FPM Program Leader, RO